

exercice 4.

$$a) E = (x+5)(4x+10)$$

$$E = x \times 4x + x \times 10 + 5 \times 4x + 5 \times 10$$

$$E = 4x^2 + 10x + 20x + 50$$

$$E = 4x^2 + 30x + 50$$

$$F = (x-8)(7-2x)$$

x	7	-2x
x	7x	-2x ²
-8	-56	16x

$$F = -2x^2 + 23x - 56$$

$$G = (x-2)(3x+1)$$

x	3x	+1
x	3x ²	+x
-2	-6x	-2

$$G = 3x^2 - 5x - 2$$

b) Le plus rapide est d'utiliser la forme développée des expressions.

$$* E = 4x \left(-\frac{1}{2}\right)^2 + 30x \left(-\frac{1}{2}\right) + 50$$

$$E = 4x \times \frac{1}{4} - \frac{30}{2} + 50$$

$$E = 1 - 15 + 50$$

$$E = 36$$

$$* F = -2x (-5)^2 + 23x (-5) - 56$$

$$F = -2 \times 25 - 115 - 56$$

$$F = -50 - 115 - 56$$

$$F = -221$$

$$* G = 3x \left(-\frac{4}{3}\right)^2 - 5x \left(-\frac{4}{3}\right) - 2$$

$$G = 3x \times \frac{16}{9} + \frac{20}{3} - \frac{6}{3}$$